

Application No. 10/529,684
In Reply to Office action of August 2, 2007
Confirmation No. 1688

REMARKS

The present amendment is submitted in response to the Office Action mailed August 2, 2007. Claims 1-18 are currently pending in the application. No new matter or issues are believed to be introduced by this amendment. In view of the amendments above and the remarks to follow, reconsideration and allowance of this application are respectfully requested. Claims 1-12 have been amended to place them in better form in compliance with U.S. practice and to further distinguish the invention over the cited art. Claims 13-18 have been added to further clarify the invention over the cited art.

Allowed Claims

Applicant wishes to thank the Examiner for indicating that claim 10 would be allowable if written in independent form including all of the limitations of the base claim and any intervening claims.

Claim Objections

In the Office Action, Claim 12 was objected to for a certain informality. Claim 12 has been appropriately amended to overcome the rejection. Allowance of Claim 12 is therefore respectfully requested.

Double Patenting Rejection

In the Office Action, Claims 1 – 9 and 11 – 12 were rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-3 ,7-

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8, 10-11 and 17-18 of copending U.S. Patent Application No. 10/ 529,685 (hereinafter the 685' patent).

In making the rejection, the Examiner contends that while the claims are not identical, they are not patentably distinct from each other because claims 1 and 7 of copending 685' patent recites the same elements in claim 1 ~ 2 of the present application.

However, for the reasons discussed below, the Applicants respectfully disagree and traverse the rejection.

Based on the recitation of claim 1 of the 685' patent and portions of the specification, such as those found at pars. 7-9 at page 2, as shown below, it is apparent that the 685' patent is directed to a method and apparatus directed to heating electro-magnetic material at the bit locations to a programming temperature to set the magnetic state of the magnetic material according to predefined data.

Claim 1 of the 685' patent recites –

1. Memory device comprising an information plane (14) comprising an electro-magnetic material constituting an array of bit locations (31), a magnetic state of said material at a bit location representing the value thereof, and an array of electro-magnetic sensor elements (51) that are aligned with the bit locations, characterized in that the magnetic state of said material is programmable or programmed via a separate writing device (21) for providing at least one beam of radiation for heating the electro-magnetic material at the bit locations to a programming temperature. [Emphasis Added]

The specification of the 685' patent, at page 2 recites –

[0007] According to a first aspect of the invention the object is achieved with a memory device as defined in the opening paragraph, characterized in that the magnetic state of said material is

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programmable or programmed via a separate writing device for providing at least one beam of radiation for heating the electromagnetic material at the bit locations to a programming temperature.

[0008] According to a second aspect of the invention the object is achieved with a writing device for programming the memory device, the writing device comprising a programming surface for cooperating with the information plane of the memory device, and heating means for generating at least one beam of radiation for heating the electromagnetic material at the bit locations to a programming temperature.

[0009] According to a third aspect of the invention the object is achieved with a method of manufacturing a memory device, the method comprising programming the device by heating the electromagnetic material at the bit locations to a programming temperature via at least one beam of radiation provided by a separate writing device, and setting the magnetic state of the electromagnetic material at the bit locations according to predefined data.

Applicant respectfully submits that the claimed invention distinguishes over the 685' patent. Applicants' claimed device and associated method is not directed to heating electro-magnetic material at the bit locations to a programming temperature to set the magnetic state of the magnetic material according to predefined data, as taught in the 685' patent. Instead, the invention is directed to a device and associated method sets the magnetic state of electro-magnetic material at bit locations according to predefined data via a magnetic field. This is supported in claim 1 and throughout the specification. For example, claim 1, recites in part - *wherein the information plane comprising said array of bit cells is programmable or programmed via a magnetic field induced via a separate magnetic writing device*

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1. A memory device comprising:

an array of bit cells for storing data bits in a corresponding array of bit locations, the array of bit cells constituting an information plane wherein each of said bit locations includes an electromagnetic material, wherein a magnetic state of said electromagnetic material at said a-bit locations represents the logical value thereof, and

an array of electro-magnetic sensor elements that are aligned with the bit locations, wherein the information plane comprising said array of bit cells is programmable or programmed via a magnetic field induced via a separate magnetic writing device.

In further support of this distinction, the specification of the claimed invention recites at paragraphs 7 – 9, critical distinguishing terminology, such as, for example, “programmable via a separate magnetic writing device” and “means for generating a magnetic field” and “magnetizing the electromagnetic material at the bit locations according to predefined data before encapsulating the device”.

[0007] According to a first aspect of the invention the object is achieved with a storage device as defined in the opening paragraph, characterized in that the information plane is programmable or programmed via a separate magnetic writing device.

[0008] According to a second aspect of the invention the object is achieved with a writing device as defined in the opening paragraph, characterized in that the device comprises a programming surface for cooperating with the information plane of the memory device, and means for generating a magnetic field at the programming surface for magnetizing the electromagnetic material at the bit locations. [Emphasis Added]

[0009] According to a third aspect of the invention the object is achieved with method of manufacturing a memory device as defined in the opening paragraph, characterized in that the method comprises a step of magnetizing the electromagnetic material at the bit locations according to predefined data before encapsulating the device.

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Applicant thus submits that his invention differs, not in purpose (to program bit locations) but in function (heating vs. magnetizing the bit locations).

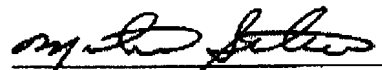
Accordingly, it is respectfully requested that the rejection on the grounds of nonstatutory obviousness-type double patenting of Claims 1 - 9 and 11 - 12 be withdrawn, and that all claims be allowed.

Conclusion

In view of the foregoing amendments and remarks, it is respectfully submitted that all claims presently pending in the application, namely, Claims 1-18 are believed to be in condition for allowance and patentably distinguishable over the art of record.

If the Examiner should have any questions concerning this communication or feels that an interview would be helpful, the Examiner is requested to call Mike Belk, Esq., Intellectual Property Counsel, Philips Electronics North America, at 914-945-6000.

Respectfully submitted,



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